Commonwealth of Massachusetts

Division of Marine Fisheries

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May 21, 2019

Edgartown Conservation Commission
Town Hall
P.O. Box 1065
Edgartown, MA 02539

Dear Commissioners:

The Division of Marine Fisheries (MA DMF) has reviewed the Notice of Intent by Vineyard Wind LLC for the Vineyard Wind Connector project for the portions of the offshore transmission that are in Edgartown waters, as part of a broader offshore wind project. This includes two submarine cables that will be installed between the islands of Martha's Vineyard and Nantucket.

The Offshore Export Cable Corridor (OECC) within Edgartown's offshore waters includes two variations through Muskeget Channel, the "western" and "eastern" options. The western corridor traverses approximately 13.7 miles of Edgartown's waters while the eastern corridor traverses approximately 12.4 miles of Edgartown's waters as well as a short segment in Nantucket waters.

The two cables traversing Nantucket Sound waters will most likely be jet-plowed approximately 330 feet apart and buried between 5 – 8 feet under the substrate. If cable protection is needed (approximately 10' across), a layer of rock, concrete mattresses, or half-shell pipes will be laid over the exposed cables. If the dredging of sand waves is necessary, jetting or trailer suction hopper dredging will be used.

Construction methodologies have not been finalized. In our recommendations we attempt to identify the methodologies that minimize impact. If other methodologies are selected, additional conditions to avoid or minimize impacts may be necessary.

Portions of the project site lie within mapped shellfish habitat for surf clam (*Spisula solidissima*) and blue mussel (*Mytilus edulis*). Sections of the proposed cable routes have habitat characteristics suitable for these species. Land containing shellfish is deemed significant to the interest of the Wetlands Protection Act (310 CMR 10.34) and the protection of marine fisheries.

This portion of the project is located in Muskeget Channel, one of 3 major channels of Nantucket Sound. This channel is utilized by many marine fisheries species, more notably squid, river herring, shad, sea herring, striped bass, lobster, Jonah crab, horseshoe crab, and conch. Muskeget Channel is known to be a major thoroughfare for many migratory fish including marine mammals, and endangered turtles (Leeney et al. 2010). In this high current area, there are many challenges with sampling for these animals, so there is little known about where and when

they use the channel (Leeney et al. 2010). Unique benthic and hydrographic features in the channel may be used by these species for specific life history behaviors.

MA DMF offers the following comments for your consideration:

- MA DMF has requested in previous communications that all cable laying within Nantucket waters should avoid the spring season (April-June) due to high concentrations of fishing activities and natural resource events (spawning and egg laying). A meeting with Vineyard Wind on 1/31/2019 laid out a sequencing of cable-laying that results in fall cable laying in the northern part of the offshore export cable, alleviating our primary time of year concerns. However, the Muskeget Channel portion is planned to be laid in the spring (April-June) of 2021. Specific actions on the part of Vineyard Wind may be necessary to mitigate conflicts with vessels and fishing activities in Nantucket waters. There are ongoing conversations regarding both compensatory mitigation for fishermen as well as communication protocols during cable laying.
- Turbidity, particularly in the event of dredging, can impact both benthic and pelagic marine fisheries resources. High turbidity levels could affect migrations through Muskeget Channel and sedimentation could smother benthic organisms. We recommend methods be used that minimize turbidity (for example, controlled flow excavation) and habitat alteration.
- Closures around the cable laying vessel are expected per USCG regulations. It is conceivable that a cable laid on the seafloor is protected via a closure until it is buried. This could have adverse impacts on fishing access and depending on the specific time of year and the length of the closure these impacts could be severe. <u>We strongly recommend simultaneous lay and burial to ensure minimal closure of the cable laying area to other activities.</u>
- "Special, sensitive, and unique habitats include hard/complex bottom, eelgrass, and marine mammal habitat which, consistent with the Ocean Management Plan, are to be avoided where practicable (page A-13)." MA DMF supports this approach.
- Once the cable is energized, a potential impact to marine fisheries resources is the electromagnetic field (EMF) emitted by the cable. Some marine fisheries resources are sensitive to these fields (e.g., flounders, see McCann, 2012). The planned burial of the cable to ~1.5-2.5 m will minimize the impact of EMF. <u>We recommend burial of at least 1.5 m and monitoring cable burial continuously via temperature monitoring or other in-situ method. If continuous monitoring cannot be done, then geophysical surveys should occur at least annually (which is more frequently than is currently described in the Construction Operations Plan) and always after major storm events such as hurricanes and nor'easters.</u>
- Some sections of the cable may need to be armored for long-term protection. We recommend using natural materials that mimic the surrounding seafloor. Mitigation for habitat conversion may be needed.
- A mechanism to compensate fishermen for lost gear during construction and operation has not been established but has been discussed.
- The Benthic Habitat Monitoring Plan submitted as part of this NOI is inadequate both in terms of sample sizes and collection methods to assess any potential changes to seafloor infauna or bathymetry following cable installation. Only 10 sites from five habitat types are proposed for assessment. It is unclear if any of these sites are in Edgartown waters.
- The Benthic Habitat Monitoring Plan is insufficient to assess project impacts to important food for wildlife (e.g. shallow submerged lands with high densities of polychaetes, mollusks, or macrophytic algae), distribution of sediment grain size, and changes in

natural relief and elevation caused by cable laying. The samples taken to assess these impacts need to be taken at a relevant scale and with quantitative methods. As we have stated in other letters, the Benthic Habitat Monitoring Plan needs to be fully revised with guidance from the agencies. Some specific recommendations that we have made include:

- The benthic stations where infauna are being sampled should also be sampled for grain size.
- Sediment profile imaging (SPI) images should be taken pre- and post-construction.
- The entire cable pathway should be re-imaged with multibeam post-construction; those data should be incorporated in a post-construction impact analysis.
- Video surveys should use high resolution video and be georeferenced.
- The timeline of sampling, including the season, should be clarified.
- The benthic monitoring plan needs additional detail with respect to how change will actually be measured and may need additional sampling stations for a quantitative assessment.
- The plan should state the hypotheses being tested.
- The plan identifies reports as the primary product; we recommend all data be made available in regional database management systems and directly to requesting agencies.

Questions regarding this review may be directed to Eileen Feeney in our New Bedford office at (508) 742-9721.

Sincerely,

David E. Pierce, Ph.D
Director

cc: Jack Vaccaro, Epsilon Associates, Inc.
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DP/JL/EF/sd

References

Leeney RH, Nichols OC, Sette L, Wood LaFond S, Hughes PE (2010) Marine megavertebrates and fishery resources in the Nantucket Sound - Muskeget Channel area: ecology and effects of renewable energy installations. Report to Harris Miller Miller & Hanson Inc., September 2010. Provincetown Center for Coastal Studies, Provincetown, MA, USA. 88 pp.

McCann, J. (2012). Developing Environmental Protocols and Modeling Tools to Support Ocean Renewable Energy and Stewardship. U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Office of Renewable Energy Programs, Herndon, VA., OCS Study BOEM 2012-082, 626 pp.